



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

*Myographische Versuche am lebenden Menschen.* Von A. FICK. Arch. f. d. Ges. Physiol., September, 1887.

Change of tension in muscles so disposed that their length cannot vary is called isomeric contraction, and an apparatus devised by Fick to show this change of tension is called a tension indicator. The extended hand was laid in a simple frame with the palm or surface vertical, the thumb directed upwards with its ball resting against a solid wooden surface, and the index finger, to the second joint of which the indicator was attached, in a horizontal direction. The changes of length were of course not absolutely excluded, but were registered, greatly magnified, by a very long lever. Electrical stimulus was applied to the abductor indicis. Thus it was possible to reckon what Weber called the "absolute muscular power," or the direct pull of the muscle on that part of the bone leverage to which it is attached, which is a magnitude of the same order as that which Koster by another method determined for the muscles of the calf of the leg. No endurable degree and no frequency of electric stimulus can excite the same degree of tension as the will, but only at most about two thirds as much. A tetanus can develop from six to ten times as great tension as a single shock. While a frog's muscle of about the same size develops great energy of contraction from a single shock, a series of tetanizing shocks can hardly develop double the energy of one. The voluntary and electrical stimulus summate, but the greater the voluntary tension the less is the additional tension caused by electricity. The interval of time between the individual shocks is within wide limits indifferent. Besides this increased tension the electric stimulus there is a later reflex diminution of the voluntary tension. If the latter was maximal, only the reflex effect is seen on the indicator.

*Ueber Ataxie und Muskelsinn.* GOLDSCHIEDER. Verhandlungen der Physiol. Gesellsch., Berlin, August, 1887.

Dr. Goldscheider reports experiments which favor the Leyden theory of spinal ataxia (which ascribes it to lesions of sensory tracts), as opposed to the theory of Erb and Friedreich (which ascribes it to centrifugally conducting co-ordination fibres). As both parties admit that in rare cases there may be extended and absolute anæsthesia produced without ataxia, as well as ataxia without disorders of sensibility, the question really focuses down to the problem of the muscle sense. To test this he rested the hand in a plaster mould, palm upward, and bent the index finger back by changing pressure of a small weight, measuring carefully the least angular bending at the first joint which could be perceived. A faradic current was then applied over the joint which caused nearly complete anæsthesia, when it was found that the finger joint must be bent far more to be perceived than before. Thus centripetal impressions from the nerves of the joint seem to be an element in the perception of passive movement. If active movements are attempted by a finger thus faradized, they can no longer be made continuously, but are intermittent, as well as excessive and more rapid, in other words ataxic, while the subject believes the movements to be uniform. With strong currents the graphic representation of both flexion and extension is like stairs. If the eye and attention are turned to the finger, the amplitude and rapidity of motion are reduced to the normal, but the intermittence can be but slightly